

**Notice of Allowability**

Application No.

10/501,378

Examiner

Benjamin Buss

Applicant(s)

JIN ET AL.

Art Unit

2129

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers filed 11/27/2007.
2. ☒ The allowed claim(s) is/are 11-18 and 20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☒ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: EPO 02003557.2.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **DETAILED ACTION**

#### **Priority**

Receipt is acknowledged of papers submitted for Applicant's claim for priority as a 371 of PCT/EP02/14002 filed on **12/10/2002**, which papers have been placed of record in the file.

Receipt is acknowledged of certified papers submitted Applicant's claim for priority based on 02001252.2 filed in Europe on 1/17/2002, which papers have been placed of record in the file.

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Europe on 2/15/2002. It is noted, however, that applicant has **not** filed a certified copy of the 02003557.2 application as required by 35 U.S.C. 119(b).

#### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

#### **Specification**

Insert the following paragraph following page 1 line 1 (TITLE OF THE INVENTION):

This application is a 371 of PCT/EP02/14002 filed on 12/10/2002. This application also claims priority based on application 02001252.2 filed in with the European Patent Office on 1/17/2002 and application 02003557.2 filed with the European Patent Office on 2/15/2002.

#### **REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance: Claims 11-18 and 20 are considered allowable since when reading the claims in light of the specification, as per MPEP §2111.01 or In re Sneed, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983), none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims including using "a fitness function comprising a sum of weighted sub-functions, each weighted sub-function corresponding to an objective of the multiple objective optimization" including "changing weights of the weighted sub-functions for the next cycle within predetermined ranges, a first weight of the weighted sub-functions changing within a first predetermined range, a

second weight of the weighted sub-functions changing within a second predetermined range different from the first predetermined range, the first predetermined range and the second predetermined range representing preferences given to objectives of the multiple objective optimization" (supported at e.g., page 14 line 19 – page 15 line 26), as specified in independent claims 11 and 20.

The person of ordinary skill in the art at the time the invention was made would have understood the claimed "computer readable storage medium" to be well known as a physical material upon which the claimed "instructions executable by a processor" are stored and able to be read by a computer and executed by a computer processor to carry out the claimed steps resulting in the processor outputting "one or more offspring individuals after the termination criterion is met as the optimized object parameters of the mechanical, aerodynamic or hydrodynamic body" as claimed. The well-established nature of such a medium in the art is evidenced by the "IEEE 100 The Authoritative Dictionary of IEEE Standards and Terms, Seventh Edition" which defines:

**machine-readable medium:** A data medium that is machine-readable.

**machine-readable:** Pertaining to data in a form that can be automatically input to a computer, for example, data encoded on a diskette; Pertaining to a medium that can record information and convey it to a machine or sensing device.

**media:** Material on which information can be stored or transported; Any readable or writable data storage area.

**medium:** The material, or configuration thereof, on which data are recorded; for example, paper tape, cards, magnetic tape; machine-readable medium; data medium.

**data medium:** A material in or on which data are or may be represented; data carrier; prerecorded data medium; medium.

**data carrier:** Material that serves as a data medium or to which a data medium is applied that facilitates the transport of data; for example, a punch card, a disk, or a plastic card with a magnetic surface that serves as the data medium.

The Examiner was persuaded by the arguments filed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**Correspondence Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin Buss whose telephone number is 571-272-5831. The examiner can normally be reached on M-F 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Vincent can be reached on 571-272-3080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Benjamin Buss  
Examiner  
Art Unit 2129

/BB/

 11/30/08  
DAVID VINCENT  
SUPERVISORY PATENT EXAMINER